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PATENT APPLICATION

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Thomas E. Drake, Jr.
Serial No.: Unknown
Filing Date: December 12, 2003
Group Art Unit: Unknown
Examiner: Unknown
Title: REMOTE LASER BEAM DELIVERY
SYSTEM AND METHOD FOR USE WITH A
ROBOTIC POSITIONING SYSTEM FOR
ULTRASONIC TESTING PURPOSES

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

REQUEST FOR DECLARATION OF INTERFERENCE

Applicant respectfully requests the Examiner to declare an interference between the present Application and an issued patent.

I. 37 C.F.R. §1.607(a)(1)

The issued patent for which Applicant is requesting a declaration of interference is U.S. Patent No. 6,637,266 that issued to Douglas Allen Froom on October 28, 2003 from U.S. Application Serial No. 10/081,900 filed on February 20, 2002, which claims benefit to U.S. Application Serial No. 09/645,540 filed on August 25, 2000 (now U.S. Patent No. 6,378,387 issued April 30, 2002). The assignee of U.S. Patent No. 6,637,266 is believed to be Aerobotics, Inc. of Orangevale, CA.

II. 37 C.F.R. §1.607(a)(2)

Applicant respectfully presents the following proposed Counts:

Claims 1-25 of the present Application.

III. 37 C.F.R. §1.607(a)(3)

At least the following claims of U.S. Patent No. 6,637,266 correspond to the proposed Counts:

Claims 1-22 of U.S. Patent No. 6,637,266 correspond to the proposed Counts.

IV. 37 C.F.R. §1.607(a)(4)

At least the following claims of the present Application correspond to the proposed Counts:

Claims 1-25 of the present Application correspond exactly to the proposed Counts.

V. 37 C.F.R. §1.607(a)(5)

The following table shows how the terms of the claims of the present Application corresponding to the proposed Counts are applied to the disclosure of the present Application.

CLAIMS	SUPPORT IN APPLICATION
<p>1. An apparatus for intact testing of an object, comprising, in combination:</p> <p>means for scanning the intact object, said scanning means mounted on a robot, said robot free standing with respect to the object; and</p> <p>comparison means to correlate data from the scanning means to a standard.</p>	<p>Page 10, lines 2-6.</p> <p>Page 19, lines 6-33, and Page 20, lines 1-9.</p> <p>Page 13, lines 25-33, and page 14, lines 1-3.</p> <p>page 19, lines 13-17.</p> <p>Page 22, line 18-26.</p> <p>Page 32, lines 23-27.</p> <p>Page 33, lines 1-8.</p> <p>Page 34, lines 11-26.</p> <p>Page 41, lines 22-28, and Page 42, lines 1-13.</p>
<p>2. The apparatus of Claim 1, wherein said scanning means includes means to move in three linear directions and about at least two axes.</p>	<p>Page 11, lines 17-23.</p> <p>Page 25, lines 9-31.</p> <p>Page 29, lines 31-33, and Page 30, lines 1-9.</p> <p>Page 30, lines 18-33, and Page 31, lines 1-13.</p> <p>page 31, lines 24-29.</p> <p>Page 32, lines 23-27.</p> <p>Page 41, lines 25-27.</p>

<p>3. The apparatus of Claim 2, wherein said scanning means includes means to move in three linear directions and about three axes.</p>	<p>Page 11, lines 17-23. Page 25, lines 9-31. Page 29, lines 31-33, and Page 30, lines 1-9. Page 30, lines 18-33, and Page 31, lines 1-13. page 31, lines 24-29. Page 32, lines 23-27. Page 41, lines 25-27.</p>
<p>4. The apparatus of Claim 1, further including means to align said robot relative to the object.</p>	<p>Page 15, lines 1-33. Page 16, lines 1-5. Page 22, lines 15-26. Page 24, lines 17-25. Page 37, lines 17-33, and Page 38, lines 1-10.</p>
<p>5. The apparatus of Claim 1, wherein said robot includes a scanning head with means to move in three linear, orthogonally offset directions and at least two rotational directions.</p>	<p>Page 11, lines 17-23. Page 25, lines 9-31. Page 29, lines 31-33, and Page 30, lines 1-9. Page 30, lines 18-33, and Page 31, lines 1-13. page 31, lines 24-29. Page 32, lines 23-27. Page 41, lines 25-27.</p>

<p>6. The apparatus of Claim 5, wherein said robot includes a scanning head with means to move in three linear, orthogonally offset directions and three rotational directions.</p>	<p>Page 11, lines 17-23. Page 25, lines 9-31. Page 29, lines 31-33, and Page 30, lines 1-9. Page 30, lines 18-33, and Page 31, lines 1-13. page 31, lines 24-29. Page 32, lines 23-27. Page 41, lines 25-27.</p>
<p>7. The apparatus of Claim 1, further including collision-avoidance means on said scanning means to prevent gross contact with the object.</p>	<p>Page 33, lines 11-13. Page 35, lines 29-33, and page 36, lines 1-5.</p>
<p>8. The apparatus of Claim 1, wherein said scanning means includes ultrasonics.</p>	<p>Page 20, lines 4-9.</p>

<p>9. An apparatus for intact testing of an object, comprising, in combination:</p> <p>means for scanning the intact object mounted on a robot; and</p> <p>comparison means to correlate data from the scanning means to a standard;</p> <p>a structure configured to contain said apparatus and said object under inspection;</p> <p>said apparatus is coupled to said structure, resulting in the formation of a gantry for supporting a carriage, a mast mounted on said carriage and at least one of an emitter and detector mounted on said mast which forms in part at least one inspection robot capable of precise positioning over large ranges of motion;</p> <p>said at least one inspection robot further comprises a beam structure for supporting and allowing horizontal translation of said carriage;</p> <p>said carriage is coupled to said mast, wherein said mast supports and allows a vertical translation of said</p>	<p>Page 10, lines 2-6.</p> <p>Page 19, lines 6-33, and Page 20, lines 1-9.</p> <p>Page 13, lines 25-33, and page 14, lines 1-3.</p> <p>Page 19, lines 13-17.</p> <p>Page 22, line 18-26.</p> <p>Page 32, lines 23-27.</p> <p>Page 33, lines 1-8.</p> <p>Page 34, lines 11-26.</p> <p>Page 41, lines 22-28, and Page 42, lines 1-13.</p> <p>Page 25, lines 2-8.</p> <p>Page 30, lines 18-33.</p> <p>Page 30, lines 23-32.</p> <p>Page 31, lines 1-4.</p> <p>Page 31, lines 24-29.</p>
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at least one of the emitter and detector mounted on said mast, and wherein said mast is configured to provide yaw movement of said at least one of the emitter and detector; and

said at least one of the emitter and detector is configured to provide rotation about at least one axis of roll and yaw motion of said at least one emitter and detector.

Page 11, lines 17-23.

Page 25, lines 9-31.

Page 29, lines 31-33, and Page 30, lines 1-9.

Page 30, lines 18-33, and Page 31, lines 1-13.

page 31, lines 24-29.

Page 32, lines 23-27.

Page 41, lines 25-27.

10. The apparatus of Claim 9, wherein said scanning means includes ultrasonics.	Page 20, lines 4-9.
11. The system of Claim 9, wherein at least one of the emitter and detector is configured to provide rotation about an axis of pitch motion of said at least one emitter and detector.	Page 11, lines 17-23. Page 25, lines 9-31. Page 29, lines 31-33, and Page 30, lines 1-9. Page 30, lines 18-33, and Page 31, lines 1-13. page 31, lines 24-29. Page 32, lines 23-27. Page 41, lines 25-27.
12. The system of Claim 9, wherein said at least one of the emitter and detector is configured to a yoke to provide rotation about at least one axis of pitch and roll motion of said at least one of the emitter and detector.	Page 11, lines 17-23. Page 25, lines 9-31. Page 29, lines 31-33, and Page 30, lines 1-9. Page 30, lines 18-33, and Page 31, lines 1-13. page 31, lines 24-29. Page 32, lines 23-27. Page 41, lines 25-27.

13. An apparatus for intact testing of an object, comprising, in combination:	Page 10, lines 2-6.
means for scanning the intact object mounted on a robot;	Page 19, lines 6-33, and Page 20, lines 1-9.
comparison means to correlate data from the scanning means to a standard;	Page 13, lines 25-33, and page 14, lines 1-3.
a structure dimensioned to receive the object therewithin;	Page 19, lines 13-17.
said robotic scanning means supported by said structure and including means to move a scanning head of said robotic scanning means in three linear directions and at least two rotational directions;	Page 22, line 18-26.
means to initialize said scanning head both with respect to said robot and with respect to the object; and	Page 32, lines 23-27.
means to correlate data derived from scanning the object to a standard.	Page 33, lines 1-8.
	Page 34, lines 11-26.
	Page 41, lines 22-28, and Page 42, lines 1-13.
	Page 11, lines 17-23.
	Page 25, lines 9-31.
	Page 29, lines 31-33, and Page 30, lines 1-9.
	Page 30, lines 18-33, and Page 31, lines 1-13.
	page 31, lines 24-29.
	Page 32, lines 23-27.
	Page 41, lines 25-27.
	Page 15, lines 1-33, and page 16, lines 1-5.
	Page 33, lines 31-33.
	Page 36, lines 16-29.
	Page 37, line 33, and page 38, lines 1-10.
	Page 41, line 27, and page 42,

	<p>lines 1-5.</p> <p>Page 13, lines 25-33, and page 14, lines 1-5.</p> <p>Page 19, lines 13-17.</p> <p>Page 22, line 18-26.</p> <p>Page 32, lines 23-27.</p> <p>Page 33, lines 1-8.</p> <p>Page 34, lines 11-26.</p> <p>page 41, lines 22-28, and Page 42, lines 1-13.</p>
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14. The apparatus of claim 13, wherein said robotic scanning means including means to move the scanning head of said robotic scanning means in three linear directions and three rotational directions.	Page 25, lines 9-31. Page 29, lines 31-33, and Page 30, lines 1-9. Page 30, lines 18-33, and Page 31, lines 1-13. page 31, lines 24-29. Page 32, lines 23-27. Page 41, lines 25-27.
15. The apparatus of claim 13, further comprising means to hold the object in a constant position.	Page 14, lines 27-32. Page 37, line 33, and page 38, lines 1-10. Page 49, lines 5-6.
16. The apparatus of claim 15, further comprising means to assess gross distortion of object geometry.	Page 42, lines 6-10.
17. The apparatus of claim 16, further comprising said scanning head generating a laser scan.	Page 38, lines 17-27.
18. The apparatus of claim 16, further comprising said scanning head generating an electromagnetic scan.	Page 38, lines 17-27.
19. The apparatus of claim 16, further comprising said scanning head generating a radar scan.	Page 38, lines 17-27.

<p>20. A method for testing an object for present or potential defects, comprising:</p> <p>scanning the object with a sensor means to generate data for the object;</p> <p>comparing the data for the object for correlation with reference data;</p> <p>identifying any defects as a result of the comparison.</p>	<p>Page 10, lines 2-6.</p> <p>Page 19, lines 6-33, and Page 20, lines 1-9.</p> <p>Page 13, lines 25-33, and page 14, lines 1-5.</p> <p>Page 19, lines 13-17.</p> <p>Page 22, line 18-26.</p> <p>Page 32, lines 23-27.</p> <p>Page 33, lines 1-8.</p> <p>Page 34, lines 11-26.</p> <p>page 41, lines 22-28, and Page 42, lines 1-13.</p> <p>Page 13, lines 25-27.</p>
<p>21. The method of Claim 20, wherein the sensing means includes a robot for sensing, monitoring at least one sensor on the robot, and moving the at least one sensor in X, Y, or Z directions and/or about at least two axes.</p>	<p>Page 25, lines 9-31.</p> <p>Page 29, lines 31-33, and Page 30, lines 1-9.</p> <p>Page 30, lines 18-33, and Page 31, lines 1-13.</p> <p>page 31, lines 24-29.</p> <p>Page 32, lines 23-27.</p> <p>Page 41, lines 25-27.</p>

<p>22. The method of Claim 21, wherein the robot is moved about any of a pitch, roll, and yaw axis.</p>	<p>Page 25, lines 9-31. Page 29, lines 31-33, and Page 30, lines 1-9. Page 30, lines 18-33, and Page 31, lines 1-13. page 31, lines 24-29. Page 32, lines 23-27. Page 41, lines 25-27.</p>
<p>23. The method of Claim 20, wherein the sensing means employs ultrasonics.</p>	<p>Page 20, lines 4-9.</p>
<p>24. The method of Claim 20, further comprising: initializing the sensing means relative to a fixed spot in order to precisely locate the object.</p>	<p>Page 15, lines 1-27. Page 33, lines 1-8. Page 33, line 31, to page 34, line 7.</p>
<p>25. The method of 24, further comprising: updating the comparison with other data associated with the object to provide trend analysis.</p>	<p>Page 13, line 25, to page 14, line 3.</p>

VI. 37 C.F.R. §1.607(a)(6)

Claims 1-25 of the present Application recite substantially the same subject matter as Claims 1-22 of U.S. patent No. 6,637,266.

In accordance with 35 U.S.C. §135(b)(1), the claims of the present Application are being made less than one year from the date on which U.S. Patent No. 6,637,266 was granted.

In accordance with 35 U.S.C. §135(b)(2), there has been no publication under 35 U.S.C. §122(b) related to U.S. Patent No. 6,637,266.

VII. 37 C.F.R. §1.607(b)

Applicant has presented claims in the present Application which are patentable over the prior art and interfere with the claims of U.S. Patent No. 6,637,266.

VIII. 37 C.F.R. §1.607(c)

The following shows which claims of the present Application correspond substantially to those claims of U.S. Patent No. 6,637,266:

Claims 1-8 of the present Application correspond substantially to Claims 1-6 of U.S. Patent No. 6,637,266.

Claims 9-12 of the present Application correspond substantially to Claims 7, 8, and 22 of U.S. patent No. 6,637,266.

Claims 13-19 of the present Application correspond substantially to Claims 9-21 of U.S. Patent No. 6,637,266.

Claims 20-25 of the present Application are method claims that correspond substantially to the apparatus claims of U.S. Patent No. 6,637,266.

IX. 37 C.F.R. §1.608(a)

The present application claims the benefit of U.S. Application Serial No. 10/645,404 filed August 21, 2003, which claims the benefit of U.S. Application Serial No. 09/907,493 filed July 16, 2001 (now U.S. Patent No. 6,643,002 issued November 4, 2003), which claims the benefit of U.S. Provisional Application No. 60/218,340 filed July 14, 2000. The present Application also claims the benefit of U.S. Application Serial No. 10/634,342 filed August 5, 2003, which claims the benefit of U.S. Application Serial No. 09/343,920 filed June 30, 1999 (now U.S. Patent No. 6,633,384 issued October 14, 2003), which claims the benefit of U.S. Provisional Application No. 60/091,240 filed June 30, 1998. In addition, the present Application claims the benefit of U.S. Application Serial No. 10/668,896 filed September 23, 2003, which claims the benefit of U.S. Application Serial No. 09/416,399 filed October 12, 1999 (now U.S. Patent No. 6,657,733 issued December 2, 2003), which claims the benefit of U.S. Application Serial No. 09/345,558 filed June 30, 1999 (now U.S. Patent No. 6,122,060 issued September 19, 2000), which claims the benefit of U.S. Provisional Application No. 60/091,229 filed June 30, 1998. Applicant respectfully requests the benefit of the filing dates of these earlier applications.

The disclosure that supports the claims and the counts identified above and substantially relied on for this Request for Declaration of Interference is contained within U.S. Provisional Application Nos. 60/218,340, 60/091,240, and 60/091,229. As a result, the relevant effective filing date for the present Application is, at the latest, July 14, 2000 with other support effective to June 30, 1998. Since the effective filing date for the present Application is prior to the effective filing date of U.S. Patent No. 6,637,266, which

is August 25, 2000, there is a basis upon which Applicant is entitled to judgment relative to the patentee.

X. 37 C.F.R. §1.604

Applicant is also aware of the filing of U.S. Application Serial No. 10/465,216 on June 18, 2003, which is a continuation application from U.S. Patent No. 6,637,266 of which a declaration of interference is respectfully requested. Applicant believes that at least Claims 20-25 of the present Application may claim substantially the same patentable invention as the claims in pending U.S. Application Serial No. 10/465,216. To the extent that U.S. Application Serial No. 10/465,216 claims substantially the same invention as the present Application, Applicant respectfully requests that a declaration of interference also be declared with respect to the present Application and U.S. Application Serial No. 10/465,216.

CONCLUSION

Based on the foregoing, Applicant respectfully requests that an interference be declared between the present Application and U.S. Patent No. 6,637,266.

The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.

Attorneys for Applicant

A handwritten signature in dark ink, appearing to read 'Charles S. Fish', is written over the printed name.

Charles S. Fish

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January 7, 2004

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